




**MINERALS PROGRAM INSPECTION REPORT**  
**PHONE: (303) 866-3567**

The Division of Reclamation, Mining and Safety conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

<b>MINE NAME:</b> Henderson Mine	<b>MINE/PROSPECTING ID#:</b> M-1977-342	<b>MINERAL:</b> Molybdenum	<b>COUNTY:</b> Clear Creek, Grand
<b>INSPECTION TYPE:</b> Monitoring	<b>WEATHER:</b> Clear	<b>INSP. DATE:</b> June 14, 2023	<b>INSP. TIME:</b> 10:00
<b>OPERATOR:</b> Climax Molybdenum Company	<b>OPERATOR REPRESENTATIVE:</b> Jolyn Bryant	<b>TYPE OF OPERATION:</b> 112d-3 - Designated Mining Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$135,204,778.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>INSPECTOR(S):</b> Peter Hays Brock Bowles Joel Renfro	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> June 29, 2023	

**GENERAL INSPECTION TOPICS**

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

## OBSERVATIONS

The Henderson Mine was inspected by Peter Hays, Brock Bowles and Joel Renfro with the Division of Reclamation, Mining and Safety (Division/DRMS) as part of the Division's monitoring inspection program. Ms. Jolyn Bryant with Climax Molybdenum - Henderson Operations (Henderson) was present during the inspection.

The following mine facilities were observed and/or discussed by the Division during the inspection; the hoist house, the #2 shaft, surface water sampling points CC-10, CC-30 and BG-30, the URAD water treatment plant, Pond 1.2 and the stormwater control facilities at the Mine. Additionally, the 2023 Annual Water Monitoring Report was discussed during the inspection.

### Hoist House:

The hoist house was observed and the operation of the hoists were explained with the hoist operator.

### #2 Shaft:

The #2 Shaft is the main shaft for access to the underground mine workings. The service and man cages are located in the shaft and are controlled by the hoist house operator. The shaft also serves as the main air inlet for the mine. The #1 and #3 shafts were previously used as air outlet shafts, but are now passive air inlets. The #5 shaft is the current air outlet shaft of the underground mine operations.

### Surface water compliance points:

Surface water compliance points; CC-10, CC-30 and BG-20 were observed. No problems were noted at the compliance points.

### Mine EPF 1.1 - Mine Water and URAD Water Treatment System:

Mine water is collected underground and pumped to settlers to remove solids. The mine water is pumped to the surface through the #2 Shaft. Once on the surface, the water is pumped to a holding tank which is conveyed to the URAD water treatment plant (WTP) via 12" and 14" HDPE pipelines. The pipelines are cleaned weekly, alternating lines, with "pigs" which are pushed through the lines with pressure from a surge tank to scour and reduce scaling in the pipes. The water sent to the URAD WTP is delivered to the Buffer Pond (Pond 1) where it is held until pumped into the treatment system. The treated water is discharged under CDPS permit #CO-0041467. The resulting solids from the treatment system are piped to sludge cells east of the WTP. The dry solids are disposed of in an approved solid waste landfill. The URAD WTP and associated facilities and the entire length of the mine water pipelines were incorporated into the permit boundary under AM-07 in 2020.

### Mine EPF 1.3 - Pond 1.2:

Pond 1.2 is a 26 acres-foot, subgrade lined pond located southeast of the Mine entrance gate. The pond was originally designed as a mine water sediment pond. The pond was repurposed in TR-08 for the storage of HDS generated at the URAD water treatment plant. The pond has been maintained in an inactive state since 1999. The Pond 1.2 liner contain stormwater at the time of the inspection. The liner and the inlet and outlet structures appeared to be working as designed and in accordance with the approved as-built drawings. The chain-link fence surrounding the pond was repaired in 2019. Sections of the fence were observed to be damaged by the snow load over the past winters. The Division recommends the damaged sections of fence are repaired by the Operator.

**Stormwater control facilities:**

The Division and Henderson staff inspected nine (9) of the outfalls at the Mine site. A list of the outfalls with comments from the inspection are below:

OF-1: BMP's at this outfall location consist of a series of rock check dams leading to a rip-rap outfall. The outfall was dry, but appeared to be functional and properly constructed.

OF-2: BMP's at this outfall location consist of a series of rock check dams leading to a sedimentation pond above the rip-rap outfall. The sediment pond contained standing water at the time of the inspection.

OF-7: BMP's at this outfall location consist of rip-rap and rock check dams. The outfall contained a small pool of water and appeared to be functional and properly constructed.

OF-8a: BMP's at this outfall location consist of a ditch with a series of rock check dams leading to a sedimentation pond. The ditch and sedimentation pond contained water and the rock check dams appeared to be working properly.

OF-8b: BMP's at this outfall location consist of a series of ditches and rock check dams leading to a rip-rap outfall. The ditches contained water and the rock check dams appeared to be working properly.

OF-8c: BMP's at this outfall location consist of a ditch with a series of rock check dams and straw waddles leading to a rip-rap outfall. The ditch and sedimentation pond contained water and the rock check dams and waddles appeared to be working properly.

OF-9: BMP's at this outfall location consist of rip-rap and vegetation below the discharge pipe. The outfall was dry, but appeared to be functional and properly constructed.

OF-14: BMP's at this outfall location consist of a ditch with a series of rock check dams leading to a rip-rap outfall. The sediment pond contained standing water at the time of the inspection.

OF-15: BMP's at this outfall location consist of a series of rock check dams leading to a sedimentation pond above a culvert. The sediment pond contained standing water. The outfall was dry and appeared to be functional and properly constructed.

The Operator stated stormwater inspections would be performed in mid to late June of this year by Henderson staff. Any repairs or maintenance to the stormwater structures would be performed as needed by the Operator.

**Inspection Contact Address**

Geoff Niggeler  
Climax Molybdenum Company  
P.O. Box 68  
Empire, CO 80438

Ec: Jared Ebert, DRMS



## PHOTOGRAPHS



Henderson Mine sign and amendment notice sign



OF-2





OF-2



OF-08a





OF-08b (no sign)



OF-08c (damaged sign)





OF-14



OF-7





OF-1



OF-15





Pond 1.2



#2 Shaft Collar





CC-10



URAD WTP





Pond 1 at the URAD WTP